

Claims

1. A method for transferring a data aggregate from a data source to a destination device enabled to connect to the data source through a first connection utilizing a fixed communications network, **characterized** in that it has the steps of
 - 5 -establishing at the destination device a second connection to the data source via a wireless communications device operable in a wireless communications network (516),
 - receiving portions of said data aggregate through both first and second **connections** (510), and
 - joining said portions together to reconstruct said data aggregate (520).
- 10 2. The method of claim 1, further comprising the step of performing analysis on the basis of at least one of the following: a connection maximum speed, a connection current speed, an estimated future speed of a connection, amount of data to be transferred, estimated transfer time, and estimated transfer costs (506,512).
- 15 3. The method of claim 2, further comprising the step of adapting a connection parameter on the basis of said analysis (518).
4. The method of claim 2 or 3, wherein said second connection is established conditionally at need due to the analysis result (508).
5. The method of any of claims 1-4, wherein a point in said data aggregate determining a beginning of said portion to be transferred through the second 20 connection is established.
6. The method of claim 5, wherein said point is established on the basis of connection speed of one or more connections and the size of said data aggregate.
7. The method of claim 5, wherein data transfer from said determined point is initiated by utilizing substantially a data transfer resume functionality.
- 25 8. The method of any of claims 1-7, wherein connection between the wireless communications device and the destination device is wireless or wire-based.
9. The method of any of claims 1-8, wherein data transfer resources are **allocated** or released dynamically during a data transfer connection.

10. The method of any of claims 1-9, wherein prior to establishing said second connection an approval thereto is requested from the user of said destination device.
11. The method of any of claims 1-9, wherein establishing or releasing said second connection is transparent to the user of said destination device.
- 5 12. An electronic device operable (608) in a fixed communications network, comprising processing means (602) and memory means (606) for processing instructions and storing data, **characterized** in that it further comprises data transfer means (608) for communicating with a wireless communications device operable in a wireless communications network, and means (602, 614) for managing transfer of a data aggregate from a data source through said fixed communications network and said wireless communications network via said wireless communications device, said data aggregate divided into at least two portions, one of said at least two portions received through said fixed communications network and the other through said wireless communications network.
- 10 13. The device of claim 12, configured to join said at least two portions together to reconstruct said data aggregate.
14. The device of claim 12, configured to check what wireless communications devices or connections are available for data transfer.
15. The device of claim 12, configured to perform analysis on the basis of at least one of the following: a connection maximum speed, a connection current speed, estimated future speed of a data transfer connection, amount of data to be transferred, estimated transfer time, and estimated transfer costs.
- 20 16. The device of claim 15, configured to adapt a connection parameter on the basis of said analysis.
- 25 17. The device of claim 15 or 16, configured to establish a connection conditionally at need due to the analysis result.
18. The device of claim 12, configured to establish a point in said data aggregate determining a beginning of said portion to be transferred through the fixed or wireless communications network.
- 30 19. The device of claim 18, configured to establish said point on the basis of connection speed of one or more connections and the size of said data aggregate.

20. The device of claim 18 or 19, configured to initiate data transfer from said determined point by utilizing substantially a data transfer resume functionality.

21. The device of any of claims 12-20, wherein connection to the wireless communications device is wireless or wire-based.

5 22. The device of any of claims 12-20, wherein connection to the fixed communications network is wireless or wire-based.

23. The device of any of claims 12-22, configured to allocate or release data transfer resources dynamically during a data transfer connection.

10 24. The device of any of claims 12-23, configured to request for confirmation from the user of the device prior to establishing said connection through the wireless communications network via the wireless communications device.

25. The device of any of claims 12-23, configured to allocate or release a connection substantially transparently from the user.

15 26. The device of claim 12 that is substantially a mobile terminal, a PDA (Personal Digital Assistant), or a computer.

27. The device of claim 15, configured to allocate the capacity of the connection through the wireless communications network according to the analysis result.

20 28. The device of claim 26 that supports at least one of the following technologies: GSM (Global System for Mobile Communications), WCDMA (Wideband Code Division Multiple Access), EDGE (Enhanced Data rates for GSM Evolution), or a HSDPA (High-Speed Downlink Packet Access).

29. The device of claim 12, wherein said data aggregate is substantially a computer file or a combination of multiple files.

30. A system comprising an electronic device operable (608) in a fixed communications network, said electronic device comprising processing means (602) and memory means (606) for processing instructions and storing data, and a wireless communications device operable (714) in a wireless communications network, characterized in that

30 said electronic device further comprises data transfer means (608) for communicating with said wireless communications device, and means (602, 614) for managing transfer

of a data aggregate from a data source through said fixed communications network and said wireless communications network via said wireless communications device, said data aggregate divided into at least two portions, one of said at least two portions received through said fixed communications network and the other through said
5 wireless communications network, and

said wireless communications device comprises means (708) for receiving instructions from said electronic device in order to establish a connection to the data source, and means (708) for forwarding data from the data source to said electronic device.

31. A computer program comprising code means to execute the method steps of claim
10 1.

32. A carrier medium carrying the computer executable program of claim 31.